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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,639	08/22/2003	Jong-byun Lee	101-1001	8017
38209	7590	10/30/2007	EXAMINER	
STANZIONE & KIM, LLP			BRINICH, STEPHEN M	
919 18TH STREET, N.W.			ART UNIT	
SUITE 440			PAPER NUMBER	
WASHINGTON, DC 20006			2625	
			MAIL DATE	DELIVERY MODE
			10/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10645639	8/22/03	LEE, JONG-BYUN	101-1001

STANZIONE & KIM, LLP  
919 18TH STREET, N.W.  
SUITE 440  
WASHINGTON, DC 20006

**EXAMINER**

Stephen M. Brinich

ART UNIT	PAPER
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2625

20071023

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

<b>Office Action Summary</b>	Application No. 10/645,639	Applicant(s) LEE, JONG-BYUN	
	Examiner Stephen M. Brinich	Art Unit 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 07 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-39, 48 and 49 is/are allowed.
- 6) ☒ Claim(s) 40-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

DETAILED ACTION

*Claim Rejections - 35 USC § 101*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 40 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 40 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. A recording medium encoded with data readable by a computer encompasses functional descriptive material such as paper on which a computer program is written. The examiner suggests amending the claim to embody the program as "a computer readable medium storing (or "encoded with") a computer program" in order to make the claim statutory.

*Claim Rejections - 35 USC § 102*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 41-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Gong et al (US 6587115).

Re claims 41 & 47, Gong et al discloses (column 7, line 40 - column 12, line 54, particularly the specific sections referenced below) a digital image quality improving arrangement in which the processor classifies pixel types (column 12, lines 18-26), block feature types (column 7, lines 42-50), and area

Art Unit: 2625

(i.e. character or image) types (column 11, lines 26-32). The block feature and area types are determined on the basis of pixel types contained in the block or area (column 7, line 42 - column 8, line 64; column 10, lines 8-65). The image is then processed (column 12, lines 58-63) pixel by pixel on the basis of these determinations.

Re claim 47, individual pixels are classified (column 12, lines 43-49), which inherently requires incrementing the pixel under consideration until all pixels have been considered.

Re claim 42-44, Gong et al discloses (column 11, lines 33-47; column 12, lines 40-42) that the types of some pixels are determined on the basis of neighboring pixels in the eight various directions on the pixel grid and the local block feature type.

Re claim 46, one of the types of block feature which may apply to a pixel is a "picture (i.e. image) block" type (column 12, lines 40-41).

*Allowable Subject Matter*

5. Claims 1-39 & 48-49 are allowed.

6. Claim 40, insofar as it is understood, would be allowable if rewritten or amended to overcome the rejection(s) under 35 USC §101 set forth in this Office action.

Art Unit: 2625

7. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 1, 24-25, 28, 33, 40, & 48-49 (and dependent claims 2-23, 26-27, 29-32, & 34-39), the art of record does not teach or suggest the recited history information updating arrangement in conjunction with the recited determination of pixel types, block feature types, and area types and the recited selective processing in accordance with those determinations.

*Response to Arguments*

8. Applicant's arguments (08/07/07 Remarks: page 18, lines 11-22) with respect to claims 24 & 43 have been fully considered and are persuasive. The rejection of claim 24 under 35 USC §101 and the rejection of claim 43 under 35 USC §112 have been withdrawn.

9. Applicant's arguments (08/07/07 Remarks: page 18, lines 18-22 & page 19, line 1 - page 20, line 1) with respect to claims 40-47 have been fully considered but they are not persuasive.

Re claim 40, as noted above, the recited functional descriptive material is not claimed as residing on a computer readable medium. A recording medium encoded with data readable by a computer encompasses functional descriptive material such as paper on which a computer program is written.

Re claims 41 & 47, Applicant argues (08/07/07 Remarks: page 19, lines 1-26) that the pixel types of Gong are determined by the block type, rather than vice versa as in the presently claimed invention.

However, Gong discloses (column 12, lines 21-26) that the pixel type of Gong is determined by characteristic values of the selected pixel as well as by the block type, and (column 12, lines 43-49) that pixel types within a block of indeterminate type are individually determined.

Re claim 42-46, Applicant argues (08/07/07 Remarks: page 19, line 27 - page 20, line 1) that these claims are allowable for the same reasons as parent claim 41.

Applicant's arguments re claim 41 are addressed above.

#### *Conclusion*

10. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

Any inquiry relating to the status of this application, entry of papers into this application, or other any inquiries of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 571-272-1000.

Art Unit: 2625

The examiner can normally be reached on weekdays 8:00-5:30, alternate Fridays off.

The examiner's unit designation has been changed from "Art Unit 2624" to "Technology Division 2625" (as of March 20, 2006).

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is (as of July 15, 2005) 571-273-8300.

Hand-carried correspondence may be delivered to the Customer Service Window, located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Stephen M Brinich  
Examiner  
Technology Division 2625

smb *Smb*  
October 24, 2007



THOMAS D.  
~~THOMAS D.~~ LEE  
TECHNOLOGY EXAMINER